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COST ESTIMATES FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES, 1974 'NEEDS' SURVEY, FINAL REPORT TO THE CONGRESS

ENVIRONMENTAL PROTECTION AGENCY

FEBRUARY 10, 1975

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FINAL REPORT
TO THE CONGRESS
FEBRUARY 10, 1975

COST ESTIMATES FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES

1974 "NEEDS" SURVEY

PREPARED PURSUANT TO
SECTIONS 205 AND 516, PUBLIC LAW 92-500
AS AMENDED BY PUBLIC LAW 93-243

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MUNICIPAL CONSTRUCTION DIVISION
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FINAL REPORT OF JOINT STATE-EPA 1974 SURVEY OF ESTIMATES OF COSTS OF CONSTRUCTION OF PUBLICLY-OWNED WASTE TREATMENT WORKS

I. INTRODUCTION

This final report presents State and EPA estimates of the cost of construction of publicly-owned treatment works needed to meet the 1983 goals of the Federal Water Pollution Control Act Amendments (FWPCA) of 1972. The report is submitted in compliance with Sections 516(b)(2) and 205(a) of the FWPCA, as further amended by Public Law 93-243. These provisions of the law have the dual purpose of obtaining a comprehensive estimate of the total cost of meeting the goals of the FWPCA, and of estimating these costs State-by-State as a possible basis for the allocation of construction grant funds authorized after Fiscal Year 1975.

Public Law 93-243 required EPA to obtain these estimates by a Nation-wide survey utilizing a modified version of the survey questionnaire prepared for the 1973 "Needs" Survey. The 1973 Survey, however, was restricted to documenting needs necessary to meet only the 1977 requirements of the FWPCA, therefore to comply with the legislative purpose of obtaining a comprehensive estimate of all the costs of meeting the 1983 goals of the FWPCA, the guidelines for the 1974 Survey were far less constraining. A Preliminary Report presented EPA's initial findings from this Survey to the Congress on September 3, 1974, and expressed the Agency's serious reservations about using the estimates for future allocation of construction funds among the States. These reservations were founded on the Agency belief: (1) that the total estimates probably overstated the cost of meeting the 1983 goals of the FWPCA - with the cost of abating pollution from stormwater overflows being of particular concern; and (2) that the comparability of State data was inadequate because of major variations both in the criteria and methodology used by the States in making their estimates and in adhering to Agency Survey guidelines. Also the Preliminary Report findings were based on a limited review of the Survey questionnaires and an evaluation of State reports on the Survey.

Following the September Preliminary Report, the Agency concentrated on completing a detailed review of all State estimates. There were three basic reasons for this more comprehensive review. The first was to identify and correct inadvertent clerical reporting inaccuracies. The second was to further evaluate State cost estimates that appeared to be excessive or otherwise deficient from the standpoint of technical validity. The third purpose was to consider the possible use of the estimates for allocation purposes and to identify data anomalies that would treat any State unfairly. As a result of these review actions EPA has developed a separate set of data which it considers to be a more realistic portrayal of the National facility requirements.

This Report also covers the Agency's analysis of the process of identifying needs and developing a formula for allocating funds to the States. The needs identification process is evaluated in terms of how this Survey was conducted, and its resultant impact on the estimates contained in the report.

II. EXPLANATION OF THE SURVEY

The 1974 Survey asked the States to report their cost estimates in the five major categories used in the 1973 Survey plus one new one for treatment and/or control of stormwaters. Two of these categories were divided for the 1974 Survey. The categories are briefly described below:

Category I - This includes costs for facilities which would provide a legally required level of "secondary treatment," or "best practicable wastewater treatment technology (BPWTT)." For the purpose of the Survey, BPWTT and secondary treatment were to be considered synonymous.

Category II - Costs reported in this category are for treatment facilities that must achieve more stringent levels of treatment. This requirement exists where water quality standards require removal of such pollutants as phosphorous, ammonia, nitrates, or organic substances.

Category IIIA - This includes costs for correction of sewer system infiltration/inflow problems. Costs could also be reported for a preliminary sewer system analysis and for the more detailed Sewer System Evaluation Survey.

Category IIIB - Requirements for replacement and/or major rehabilitation of existing sewage collection systems are reported in this category. Costs were to be reported if the corrective actions were necessary to the total integrity of the system. Major rehabilitation is considered extensive repair of existing sewers beyond the scope of normal maintenance programs.

Category IVA - This category consists of costs for construction of collector sewer systems designed to correct violations caused by raw discharges, seepage to waters from septic tanks and the like, and/or to comply with Federal, State or local actions.

Category IVB - This category consists of costs of new interceptor sewers and transmission pumping stations necessary for the bulk transport of wastewaters.

Category V - Costs reported for this category are to prevent periodic bypassing of untreated wastes from combined sewers to an extent violating water quality standards or effluent limitations. It does not include treatment and/or control of stormwaters.

Category VI - States were also asked to make a rough cost estimate in a sixth category, "Treatment and/or Control of Stormwaters." This includes the costs of abating pollution from stormwater run-off channelled through sewers and other conveyances used only for such run-off. The costs of abating pollution from stormwater channelled through combined sewers which also carry sewage are included in Category V. Category VI was added so the Survey would provide an estimate of all eligible facility costs, as explicitly required by Public Law 93-243.

The estimates were to be reported in June 1973 dollars, and are therefore comparable to the costs in the 1973 Survey. Estimates were also to be based on the projected 1990 population as in the 1973 Survey.

The 1974 Survey was initiated January 31, 1974, when a letter with a general outline of how the survey would be conducted was distributed to each State along with a copy of the questionnaire.

The States assumed responsibility for seeing that the Survey questionnaires were completed. They had the option, as in 1973, of completing a Survey questionnaire for each facility themselves, or forwarding a questionnaire to each local sewerage authority for completion. A more detailed description of how the Survey was conducted is included as Appendix A.

III. RESULTS OF THE SURVEY

The total of all State estimates and their comparison with the 1973 totals is summarized by category in the table below.

There are three sets of figures for 1974: (1) the original State data as reported in the September Preliminary Report; (2) the State figures after correcting inadvertent clerical reporting inaccuracies; and (3) the set of estimates resulting from Agency adjustments based on evaluation of technical validity of cost estimates and identification of data anomalies that would unfairly treat any State if the estimates are used in a grant allocation formula.

Included in the final EPA adjusted 1974 figures is $46 billion for Categories I, II and IVB that reflect the costs for the traditional Water Quality Program of treatment plants and interceptors. An additional $61 billion is included for Categories III, IVA and V. The State estimates for the new Category VI (treatment and/or control of stormwaters) are $235 billion. Total costs for all categories reported in the Survey therefore, come to $342 billion.

SUMMARY TABLE OF ESTIMATES

A. Totals for All Categories:

(Millions of 1973 Dollars)

CATEGORY	1974 Survey (A.) State Preliminary Data	(B.) State Corrected Data	(C.) EPA Adjusted Data	(D.) 1973 Survey Data	Change (C. to D.)
I. Secondary Treatment	11,679	12,628	12,635	16,639	- 4,004
II. More Stringent Treatment Required by Water Quality	21,311	20,330	15,720	5,650	+10,070
IIIA Correction of Sewer Infiltration/Inflow	5,355	5,340	5,287	691	+ 4,596
IIIB Major Sewer Rehabilitation	7,070	7,330	7,207	--	+ 7,207
IVA Collector Sewers	23,090	24,383	17,458	10,825	+ 6,633
IVB Interceptor Sewers	19,932	19,740	17,349	13,621	+ 4,228
V Correction of Combined Sewer Overflows	26,070	31,192	31,076	12,697	+18,379
VI Treatment and/or Control of Stormwaters	235,006	235,006	235,006	--	+235,006
TOTALS	349,613	356,157	342,318	60,123	282,195
B. Totals for Categories I, II and IVB Combined:	**52,922**	52,698	46,204	35,910	+10,294

IV. COMPARISON OF RESULTS OF THE 1973 AND 1974 SURVEYS

The 1974 Agency adjusted estimates reflect costs for the traditional Water Quality Program of treatment plants and interceptors (Categories I, II and IVB) that are $10 billion greater than the $36 billion reported in the 1973 Survey. The costs reported in 1974 for Categories I-V are $47 billion greater than the $60 billion reported in the 1973 Survey. The primary reasons for the increases are the elimination in 1974 of most of the reporting constraints included in the 1973 Survey, the general expanded scope of the Survey to accommodate reporting of all costs for all treatment facilities that the States felt were necessary in their implementation of the FWPCA, and to some degree a better job of identifying and estimating State facility requirements.

One major impact of the expanded scope of the Survey was that estimates for treatment plants and interceptors (Categories I, II and IVB) could be based on water quality standards anticipated by the States for the future and were not limited to those already established in the past, as in 1973. One result of this is evidenced in the dramatic shift from secondary treatment (Category I) to plants requiring more stringent levels of treatment (Category II). Estimates for Category III could be reported for major rehabilitation of sewer systems as well as correction of infiltration and inflow. Major rehabilitation costs of $7 billion were reported which were not eligible in the earlier Survey. These estimates did not have to be documented with an analysis and detailed evaluation of the problem as in 1973. Estimates reported for correction of combined sewer overflows in Category V were not limited in 1974 by the previous requirement that they be based on an evaluation of the most economical and/or effective alternative. A second major result of the expanded scope of the Survey was the State identification of $235 billion for the new "Treatment and/or Control of Stormwaters" Category.

V. QUALITY OF FACILITY ESTIMATES

A. General Factors Affecting Reliability and Comparability

The reliability of national wastewater treatment need cost estimates and the State-to-State comparability of these estimates are influenced primarily by three factors:

(1) The extent to which the requirements for abatement actions have been clearly defined through National, State and local plans, rules, regulations, standards, etc., determines whether abatement action decisions can be made, as well as the accuracy with which corrective action costs can be estimated.

(2) The state-of-the-art in abatement technology also determines how accurately cost estimates can be made and whether they can be validated once they have been made.

(3) The synthesis of all relevant factors through a planning process that addresses project feasibility and practicability is essential before realistic decisions and estimates can be made on any abatement action.

The net impact of these three factors is that if an abatement program area is well defined - where decisions are clear as to the specific requirement for an abatement action, and as to the best and most cost effective solution - then cost estimates can be made that are quite accurate and should not vary from year to year. If abatement requirements are unclear and alternatives numerous - estimates will be poor and may fluctuate widely each time they are made. Similarly, if the technology for an abatement solution is unclear - where there are many options and little experience with any of the options - then estimates may have only limited value. In such situations, estimates made by different parties for correcting the same type abatement problem may also fluctuate widely both at a given point in time, and from year to year. Even if program requirements and abatement technology are well defined there is no assurance of high quality estimates unless proper consideration is given to such planning elements as alternative waste management techniques and cost-effectiveness studies.

The ability to validate estimates bears a direct relationship to the ability to make them.

B. 1974 Survey Reliability

In terms of the three factors discussed in paragraph A that influence the facility cost estimating process, the 1974 Survey data has varying levels of reliability between the six cost categories.

(1) Program Definition:

The Survey guidelines were designed to meet the legislative requirement that all facility costs required in implementing the Act be reported. The problem in using such estimates is that they are based on implementation strategies that are in varying stages of development. Because of the inherent flexibility of abatement choices, the States could not be consistent or uniform in reporting their needs in situations where goals were not well-defined, or where there was no recognized "best method" for a solution. In those cases, when the range of choices available for abatement actions relating to a given pollution problem were wide, and when the legal requirements for correction offered significant latitude, there was considerable unevenness in the impact of the diverse approaches taken by States in determining what corrective abatement actions were necessary and in estimating the cost of such actions.

This situation exists in relation to costs reported in Categories III, V and VI, and makes meaningful State-by-State comparisons extremely difficult. Policy decisions in the Category VI, stormwater, area are in a particularly embryonic state of development and made cost comparisons impossible.

There were cost comparison problems even in Categories I, II, and IV, because under the Survey guidance, States were permitted to project such corrective actions that would solve known or anticipated problems in achieving the 1983 goals of the Act. Since the Water Quality Standards to meet such objectives will not be established until about 1978 by joint State and EPA concurrence, it was necessary for the various States to make an assumption as to what standards would ultimately be established. The assumed standards were then utilized in establishing the 1983 level of treatment for each plant, and costs estimated accordingly. Some States based their projections on the same standards utilized in the 1973 Survey, while others assumed that major increases would be required in the stringency of standards and estimated very high levels of treatment.

(2) Cost Estimating Technology:

The ability to make reasonably accurate engineering cost estimates and to validate them exists for Category I, II, and IV abatement needs, but is at a low state of refinement for Category III, V, and VI needs. The EPA guidelines provided to the States for guidance in making estimates in Categories III, V, and VI were admittedly of minimal assistance and had limited value in making detailed engineering estimates and State-by-State comparisons. No cost estimating guidelines could be provided to the States for Category IIIB because of the great variance in case-by-case factors in this area.

(3) Facilities Planning:

As was the case with program definition and estimating technology, the facilities planning element was more effective in the production of quality estimates in Categories I, II and IV needs. This is to be expected as those Categories encompass the facilities that have received the most funding under the traditional water quality program and have been evaluated more carefully because of their priority status. Much planning has already occured in this area and factors affecting decisions have been relatively well defined. This is true however, only as it relates to planning for facilities that are designed for the 1977 requirements of the Act. For the most part, States that made estimates based on projected 1983 requirements that were significantly more stringent than the 1977 effluent limitations were doing so for the first time, and generally made the estimates without benefit of formal planning.

Planning in Categories III and V can only be considered effective for the portion of the estimates for which formal analyses have been completed. Virtually no completed planning was available for Category VI estimates. The State data revealed an incidence of high per capita flows that is an indicator of a National planning defect in this area. It is indicative that insufficient consideration has been given to the control and reduction of flow impacting the sizing of treatment facilities.

C. Agency Assessments

The unevenness in the estimates that is described in the preceeding section resulted primarily from the wide differences in approach taken by the individual States in projecting the level of effluent limitations they would impose within their State to meet the 1983 goals of the Act. Public Law 93-243 allows the States to project any level of treatment they think necessary. However, the amount of distortion from those few States taking an extremely stringent approach appeared sufficiently large to have a potential adverse impact on the development of an equitable State allocation formula. A dilemma between following the dictates of the Act and providing fair treatment to all States was thus created.

The Agency decided that a responsive but fair allocation formula was of primary concern and initiated a review of State estimates to identify those costs that might create abnormal distortions. Because the States were in fact following the Act in terms of projecting their long-range effluent requirements, the Agency review of necessity had to be somewhat subjective. For this reason the adjusted figures may not reflect a clear picture of an individual State's total long-range needs but are considered more representative of the actual short-term requirements that would be met through funding under any current allocation formula.

The potential for distortion also existed in those situations where States deviated significantly from Agency Survey Guidelines. This was also evaluated in the review process and three areas were identified where State estimates deviated from either the Survey guidelines or from what the Agency considered acceptable engineering standards. The Agency assessment indicates that excessive costs were reported as the result of estimates exceeding EPA cost curves, the Census Bureau 1990 population projections and acceptable flow per capita standards. For the reasons stated in the preceeding section, major Agency assessments could be made only for the Category I, II and IVB estimates. A summary table showing the independent assessments for each State is attached as Appendix B.

The State needs as reported for Category IVA (New Collectors) are not considered comparable because they were developed using two different assumptions. Several of the States developed needs on the basis of the PL 92-500 requirement (Section 211) that limits eligibility for new collectors only to those communities where a substantial portion of the population existed prior to October 18, 1972, and this eligibility constraint was included in the Survey guidelines. Other States developed needs on the basis of the assumed legislative intent of PL 93-243, directing the reporting of all needs for all treatment works necessary to meet the goals of PL 92-500. The resulting disparity in reported costs has been analyzed and a separate EPA assessment made. However, the Agency feels the results still do not provide an acceptable level of comparability.

In making these independent assessments the Agency identified at least $650 million in the State of Maryland's estimates that appeared in the review to be anomalous. The State has indicated that this large increase in treatment requirements is due to special pollution problems effecting their shellfish industry and eutrophication of the Chesapeake Bay. The State estimate was not reduced, in the EPA adjustment process because the stringent effluent limitations are considered by the State to be immediate requirements that will impact current facility design.

VI. COST OF THE SURVEY

The conduct of the 1974 Needs Survey involved the committment of a substantial amount of both Federal and State resources. The Agency expended approximately $1 million for the project up through the period of Final Report submittal. It is known that the State's funding committment was at least $1.5 million. In addition, the Survey required the diversion of critical manpower during peak periods of the Survey. The National construction grant program suffered because personnel diverted were generally from that activity.

VII. CONCLUSIONS AND RECOMMENDATIONS

A. Potential Use of Estimates

To comply with the requirements of PL 93-243, these National estimates must be considered in two separate ways. They should be viewed both in terms of their value as an indicator of the total National long range facility requirements of PL 92-500, and in terms of their value for establishing State allocation formulae.

For the several reasons cited in the preceding sections of this Report, there was a degree of unevenness in the State corrected estimates that was considered unacceptable when viewing the data for allocation purposes. The Agency review process identified the extent of this unevenness and the estimates were adjusted accordingly. No meaningful adjustments could be made for Categories III, V and VI because of the status of program definitions, abatement technology and facilities planning.

If after consideration is given to the status of data comparability, the 1974 Survey estimates are to be used for allocation purposes, only Categories I, II and IVB are recommended for use. The Agency adjusted figures in these three Categories are considered to be sufficiently accurate for such purposes when viewed within the context of their overall National validity. These figures are also felt to be adequate for use as an indicator of total National requirements.

The cost estimates for the new Category VI, (treatment and/or control of stormwaters), are not considered useful as either an indicator of any long-term requirements, or for allocation purposes. States reporting large requirements in this category assumed that a stringent level of abatement for very large geographical areas would be necessary to meet water quality standards. The state-of-the-art is not such that the Agency can provide an alternative estimate for this category, but the few studies which have been conducted to assess the impact, indicate that the actual requirements in this category will be substantially less than the total reported by the States.

The Agency adjusted cost estimates for Categories IIIA, IIIB, IVA and V have limited value as an indicator of gross National requirements, but only when considered within the context of other comments regarding the needs identification policies that governed the conduct of this Survey. The cost estimates for these four Categories are not considered adequate for allocation purposes.

B. Allocation Formula

There has been continuing debate over the allocation formula used for distributing available construction grant funds among the States. When a strict population formula was used in the past it did not provide adequate funding to States that had high population concentrations and a resulting need for construction of sophisticated and expensive treatment facilities. When the legislation linked funding directly to estimated facility needs there were other inequities created. The problems with an allocation formula based strictly on needs relate primarily to the ability to accurately make and validate estimates, and are particularly acute when the estimates involve facility needs projected for State implementation of longer-range abatement requirements. This latter situation has been identified in the Report and the Agency believes that the unevenness of the estimates, even though adjusted through the Survey final review process, should be further tempered by the inclusion of a population factor within the allocation formula.

A new construction grant allocation formula is recommended that would be based on an equal 50 percent division between population and the Agency adjusted cost estimates for Categories I, II and IVB. This proposed formula is recommended for use in allocating any new funds that might be authorized over and above those authorized in PL 92-500 for Fiscal Years 1973, 1974, and 1975. With regard to the $5 billion of currently unallotted funds, it is EPA's intent to allot them pursuant to the 1973, 1974, and 1975 formulae in such a way as if they had been released in the time periods intended by the Act. Accordingly, the Agency does not recommend the application of a new allocation formula to any of these reserve funds.

Funding for the District of Columbia's "Blue Plains" water pollution control plant should be considered in the development of an allocation formula since the City has only one major treatment plant project and the allocation formula might not provide adequate funding.

C. Future Identification of Facility Requirements

Several problems relating to data reliability and comparability have been cited in this Report. Because of these problems, and the heavy drain on State and Federal resources required to conduct the 1974 Survey, the Agency will investigate different procedures for deriving future Section 516 facility estimates.

To be more effective for equitable allocation purposes, the structuring of an alternative facility requirement identification process should be directed toward improving the relationship between the dollar estimate and the actual way in which the funds will be used. To accomplish this will require that estimating concentrate on areas of program priority and grant eligibility.

The Agency will work closely with Committee staff members as it develops an alternative approach.

VIII. TABLES OF REPORTED NEEDS

Attached are three series of tables which relate to the three sets of figures discussed in the Report:

SP - State Preliminary Data
SC - State Corrected Data
EPA - EPA Adjusted Data

Each series contains the following tables:

Table 1 - Shows the distribution of cost for each State, Categories I-V.
Table 2 - Reflects cost and percentage comparison between 1973 and 1974 of combined Categories I, II, III, IV and V.
Table 3 - Shows cost and percentage comparison between 1973 and 1974 of combined Categories I, II and IVB
Table 4 - Shows a comparison of per capita costs between 1973 and 1974 for Categories I through V based on 1972 population figures.

Also included in the SP series is:

Table 5 - Shows total and per capita costs reported for Category VI by State.

NOTE: Column figures will not equal totals because of computer rounding.

TABLE SP - 1 SEPTEMBER 3, 1974

PRELIMINARY STATE ESTIMATE

1974 COSTS* REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES

(MILLIONS OF 1973 DOLLARS)

			CATEGORIES								
		TOTAL	I SECONDARY TREATMENT	II MORE STRINGENT TREATMENT	III A CORR. INFIL./ INFLOW	III B MAJOR REHAB	IV A NEW COLLECTOR SEWERS	IV B NEW INTER-CEPTORS	V COMBINED SEWER OVERFLOW	VI
REGION I	CONNECTICUT	4,687	181	85	23	36	328	265	782	2,667
	MAINE	898	130	5	1	3	116	149	197	299
	MASSACHUSETTS	6,998	721	222	36	31	982	597	866	3,121
	NEW HAMPSHIRE	1,068	165	95	26	8	218	181	191	212
	RHODE ISLAND	1,998	68	38	4	1	193	134	87	927
	VERMONT	367	36	64	8	3	37	35	37	147
REGION II	NEW JERSEY	12,163	1,041	666	211	168	685	909	909	7,554
	NEW YORK	37,959	616	2,593	465	2,108	4,667	2,065	5,009	20,341
	PUERTO RICO	954	177	0	14	0	245	211	18	289
	VIRGIN ISLANDS	113	13	0	1	0	12	19	0	68
REGION III	DELAWARE	1,195	67	32	188	67	65	101	115	608
	MARYLAND	13,439	9	1,785	58	1,133	148	839	27	9,530
	VIRGINIA	21,768	478	384	293	58	298	472	207	19,585
	WEST VIRGINIA	5,999	115	338	156	5	1,752	1,098	195	1,740
	PENNSYLVANIA	9,822	1,028	701	89	57	1,185	925	2,394	3,743
	DISTRICT OF COLUMBIA	1,354	0	68	41	217	0	2	726	300
REGION IV	ALABAMA	4,839	86	168	92	5	187	169	0	3,332
	FLORIDA	7,793	595	633	44	44	1,326	926	0	4,230
	GEORGIA	4,381	212	508	18	2	269	308	284	2,795
	KENTUCKY	3,912	63	319	56	88	456	373	679	1,898
	MISSISSIPPI	857	36	178	42	28	57	98	2	424
	NORTH CAROLINA	8,315	149	516	53	8	334	382	0	6,881
	SOUTH CAROLINA	3,328	367	47	14	0	255	349	0	2,508
	TENNESSEE	5,985	121	285	77	12	398	387	110	4,097
REGION V	ILLINOIS	7,178	258	1,832	184	64	473	449	1,693	2,225
	INDIANA	5,981	217	378	153	187	337	303	1,429	2,397
	MICHIGAN	8,783	146	653	97	459	1,021	1,009	1,938	3,630
	MINNESOTA	3,282	69	407	52	14	284	233	368	1,885
	OHIO	14,216	26	1,508	635	115	526	946	3,796	6,570
	WISCONSIN	4,625	184	421	80	131	427	447	621	1,914
REGION VI	ARKANSAS	4,085	0	519	63	0	445	389	2	2,667
	LOUISIANA	6,875	232	120	351	97	438	285	1	4,551
	NEW MEXICO	189	52	8	4	1	53	38	0	33
	TEXAS	15,271	0	2,162	296	187	713	488	119	11,717
	OKLAHOMA	5,138	0	576	67	556	178	696	0	3,067
REGION VII	IOWA	3,976	157	716	126	10	124	232	128	2,885
	KANSAS	4,760	263	71	587	326	861	297	113	2,242
	MISSOURI	3,489	460	88	219	0	383	341	878	1,120
	NEBRASKA	1,637	193	12	39	1	41	67	631	653
REGION VIII	COLORADO	733	96	283	29	24	123	212	28	NO NEEDS
	MONTANA	754	48	18	4	2	22	35	8	625
	NORTH DAKOTA	348	61	0	1	0	68	24	50	344
	SOUTH DAKOTA	283	33	32	1	0	2	9	0	206
	UTAH	758	196	0	14	2	59	24	0	455
	WYOMING	133	62	0	0	0	56	15	0	NO NEEDS
REGION IX	ARIZONA	913	166	9	1	1	332	184	0	NO NEEDS
	CALIFORNIA	76,816	1,616	2,687	353	46	811	1,184	980	49,819
	HAWAII	15,120	283	27	0	0	80	210	0	14,[illegible]
	NEVADA	316	42	102	1	0	120	45	0	NO NEEDS
	AMERICAN SAMOA	97	0	0	0	1	29	18	0	[illegible]
	GUAM	283	36	18	1	0	53	16	0	[illegible]
	TRUST TERRITORIES	198	98	18	2	0	55	25	0	NO NEEDS
REGION X	ALASKA	857	122	0	4	2	98	64	9	558
	IDAHO	966	58	64	23	16	180	180	36	409
	OREGON	1,982	167	0	57	345	192	161	262	818
	WASHINGTON	4,388	578	44	95	485	558	352	323	1,954
TOTALS		369,013	11,679	21,311	5,355	7,070	23,090	19,932	26,[illegible]	234,[illegible]

*THE FOLLOWING ADDITIONAL NEEDS NOT INCLUDED IN THIS REPORT.
WERE RECEIVED AFTER THE SURVEY CLOSING DATE:

NEW YORK $592 MILLION
KENTUCKY $381 MILLION

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FEBRUARY 19, 1975

PRELIMINARY STATE ESTIMATE
STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS
REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(CATEGORIES I, II, III, IVA, IVB AND VI
(MILLIONS OF 1973 DOLLARS)

		COSTS			PERCENTAGE OF NATIONAL TOTALS		
		92/74 SUBMITTED	EPA ASSESSMENT	CHANGE	92/74 SUBMITTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	1,020	1,594	+26	1.4147	1.4857	+0.0709
	MAINE	567	575	+22	0.5213	0.5367	+0.0153
	MASSACHUSETTS	3,375	2,984	-411	2.9474	2.7629	-0.1844
	NEW HAMPSHIRE	876	740	-136	0.7858	0.6899	-0.0758
	RHODE ISLAND	517	447	-70	0.4515	0.4171	-0.0343
	VERMONT	220	204	-16	0.1921	0.1907	-0.0013
REGION II	NEW JERSEY	4,889	4,894	+285	4.8250	4.5804	+0.5353
	NEW YORK	17,318	15,302	-2,016	15.1239	14.2591	-0.8647
	PUERTO RICO	665	603	-62	0.5807	0.5621	-0.0185
	VIRGIN ISLANDS	45	44	-1	0.0392	0.0411	+0.0018
REGION III	DELAWARE	547	546	-1	0.4777	0.5091	+0.0313
	MARYLAND	3,909	3,642	-267	3.4137	3.3941	-0.0195
	VIRGINIA	2,182	1,884	-298	1.9055	1.7562	-0.1492
	WEST VIRGINIA	4,259	2,360	-1,899	3.7194	2.1997	-1.5196
	PENNSYLVANIA	5,579	5,454	-125	4.8721	5.0826	+0.2104
	DISTRICT OF COLUMBIA	1,054	1,052	-2	0.9204	0.9810	+0.0605
REGION IV	ALABAMA	707	778	+71	0.6174	0.7256	+0.1081
	FLORIDA	3,568	2,764	-804	3.1159	2.5201	-0.5957
	GEORGIA	1,585	1,519	-66	1.3841	1.4157	+0.0315
	KENTUCKY	2,014	1,824	-190	1.7588	1.6998	-0.0589
	MISSISSIPPI	433	494	+61	0.3781	0.4604	+0.0823
	NORTH CAROLINA	1,434	1,480	+46	1.2523	1.3795	+0.1271
	SOUTH CAROLINA	1,012	977	-35	0.8837	0.9107	+0.0269
	TENNESSEE	1,308	1,210	-98	1.1422	1.1275	-0.0146
REGION V	ILLINOIS	4,945	6,234	+1,289	4.3185	5.8096	+1.4910
	INDIANA	3,084	2,983	-101	2.6234	2.7806	+0.0821
	MICHIGAN	5,323	8,132	+2,779	4.6488	7.5501	+2.9014
	MINNESOTA	1,347	1,330	-17	1.1763	1.2393	+0.0629
	OHIO	7,046	7,773	+127	6.1573	7.2439	+0.5865
	WISCONSIN	2,311	2,044	-267	2.0182	1.9047	-0.1134
REGION VI	ARKANSAS	1,238	898	-440	1.1684	0.8374	-0.3309
	LOUISIANA	1,524	1,283	-241	1.3309	1.1963	-0.1345
	NEW MEXICO	156	155	-1	0.1362	0.1452	+0.0089
	TEXAS	3,854	3,222	-632	3.3657	3.0027	-0.3629
	OKLAHOMA	2,071	1,484	-587	1.8088	1.3828	-0.4257
REGION VII	IOWA	991	911	-80	0.8654	0.8495	-0.0158
	KANSAS	2,518	1,783	-735	2.1989	1.6619	-0.5369
	MISSOURI	2,369	2,298	-71	2.0688	2.1419	+0.0730
	NEBRASKA	984	924	-60	0.8593	0.8610	+0.0016
REGION VIII	COLORADO	713	409	-304	0.6225	0.3819	-0.2406
	MONTANA	129	127	-2	0.1126	0.1183	+0.0056
	NORTH DAKOTA	204	189	-15	0.1781	0.1764	-0.0016
	SOUTH DAKOTA	77	75	-2	0.0672	0.0705	+0.0032
	UTAH	295	291	-4	0.2576	0.2716	+0.0139
	WYOMING	133	84	-49	0.1161	0.0784	-0.0376
REGION IX	ARIZONA	613	500	-113	0.5353	0.4667	-0.0685
	CALIFORNIA	6,997	6,208	-789	6.1105	5.7956	-0.3248
	HAWAII	520	523	+3	0.4541	0.4875	+0.0333
	NEVADA	316	289	-187	0.2759	0.1950	-0.0808
	AMERICAN SAMOA	55	36	-19	0.0480	0.0336	-0.0141
	GUAM	116	93	-23	0.1013	0.0871	-0.0141
	TRUST TERRITORIES	190	195	+5	0.1659	0.1821	+0.0161
REGION X	ALASKA	299	485	+186	0.2611	0.3774	+0.1162
	IDAHO	477	393	-84	0.4165	0.3663	-0.0501
	OREGON	1,144	1,081	-63	0.9998	1.0077	+0.0080
	WASHINGTON	2,415	1,836	-579	2.1090	1.7128	-0.3961
TOTALS		114,587	107,314	-7,193	100.0000	100.0000	+0.0000

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FEBRUARY 10, 1975

PRELIMINARY STATE ESTIMATE
STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS
(CATEGORIES I, II, AND IV A)
(MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		9/30/74 SUBMITTED	EPA ASSESSMENT	CHANGE	9/30/74 SUBMITTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	531	484	-47	1.0033	1.0475	+0.0441
	MAINE	284	273	-11	0.5366	0.5908	+0.0541
	MASSACHUSETTS	1,540	1,325	-215	2.9099	2.9677	+0.0421
	NEW HAMPSHIRE	441	384	-57	0.8333	0.8310	-0.0022
	RHODE ISLAND	232	187	-45	0.4383	0.4047	-0.0335
	VERMONT	135	125	-10	0.2550	0.2705	+0.0154
REGION II	NEW JERSEY	2,636	2,602	-34	4.9809	5.6315	+0.6505
	NEW YORK	5,274	4,603	-671	9.9656	9.9663	-0.0032
	PUERTO RICO	388	368	-20	0.7331	0.7964	+0.0632
	VIRGIN ISLANDS	32	31	-1	0.0604	0.0670	+0.0065
REGION III	DELAWARE	200	199	-1	0.3779	0.4306	+0.0526
	MARYLAND	2,553	2,324	-229	4.8240	5.0298	+0.2057
	VIRGINIA	1,334	1,129	-205	2.5200	2.4435	-0.0770
	WEST VIRGINIA	2,151	1,320	-831	4.0644	2.8568	-1.2075
	PENNSYLVANIA	1,854	1,629	-225	3.5032	3.5256	+0.0223
	DISTRICT OF COLUMBIA	70	69	-1	0.1322	0.1493	+0.0170
REGION IV	ALABAMA	423	472	+49	0.7992	1.0215	+0.2222
	FLORIDA	2,154	1,874	-280	4.0701	4.0559	-0.0141
	GEORGIA	1,020	1,020	+0	1.9273	2.2076	+0.2802
	KENTUCKY	755	649	-106	1.4266	1.4046	-0.0219
	MISSISSIPPI	304	359	+55	0.5744	0.7769	+0.2024
	NORTH CAROLINA	1,047	1,044	-3	1.9783	2.2595	+0.2811
	SOUTH CAROLINA	743	728	-15	1.4039	1.5758	+0.1718
	TENNESSEE	713	677	-36	1.3472	1.4652	+0.1179
REGION V	ILLINOIS	2,531	2,343	-188	4.7825	5.0709	+0.2883
	INDIANA	898	837	-61	1.6968	1.8115	+0.1146
	MICHIGAN	1,810	1,673	-137	3.4201	3.6208	+0.2006
	MINNESOTA	789	787	-2	1.4397	1.5301	+0.1903
	OHIO	2,480	2,367	-113	4.6861	5.1229	+0.4367
	WISCONSIN	1,052	939	-113	1.9878	2.0322	+0.0443
REGION VI	ARKANSAS	828	582	-246	1.5645	1.2596	-0.3048
	LOUISIANA	637	499	-138	1.2036	1.0799	-0.1236
	NEW MEXICO	98	97	-1	0.1851	0.2099	+0.0247
	TEXAS	2,030	2,025	-005	4.9695	4.3827	-0.5867
	OKLAHOMA	1,272	662	-610	2.4035	1.4327	-0.9707
REGION VII	IOWA	605	532	-73	1.1431	1.1514	+0.0082
	KANSAS	631	524	-107	1.1923	1.1341	-0.0581
	MISSOURI	889	843	-46	1.6795	1.8245	+0.1446
	NEBRASKA	272	227	-45	0.5139	0.4912	-0.0226
REGION VIII	COLORADO	511	259	-252	0.9655	0.5605	-0.4049
	MONTANA	93	90	-3	0.1757	0.1947	+0.0189
	NORTH DAKOTA	85	74	-11	0.1606	0.1601	-0.0004
	SOUTH DAKOTA	74	72	-2	0.1398	0.1558	+0.0159
	UTAH	220	218	-2	0.4157	0.4718	+0.0560
	WYOMING	77	55	-22	0.1454	0.1190	-0.0263
REGION IX	ARIZONA	279	266	-13	0.5271	0.5757	+0.0485
	CALIFORNIA	4,887	4,184	-703	9.2343	8.8823	-0.3519
	HAWAII	440	439	-1	0.8314	0.9501	+0.1186
	NEVADA	189	177	-12	0.3571	0.3830	+0.0258
	AMERICAN SAMOA	26	7	-19	0.0491	0.0151	-0.0339
	GUAM	62	60	-2	0.1171	0.1298	+0.0126
	TRUST TERRITORIES	133	133	+0	0.2513	0.2878	+0.0364
REGION X	ALASKA	186	319	+133	0.3514	0.6904	+0.3389
	IDAHO	222	216	-6	0.4194	0.4674	+0.0479
	OREGON	308	308	+0	0.5819	0.6666	+0.0846
	WASHINGTON	974	675	-299	1.8404	1.4609	-0.3794
TOTALS		52,922	46,204	-6,718	100.0000	100.0000	+0.0000

TABLE SP - 4

FEBRUARY 10, 1975

PRELIMINARY STATE ESTIMATE

PER CAPITA COSTS REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES
BASED ON 1990 POPULATION
(CATEGORIES I, II, III, IV A, IV B, AND VI)
(*MILLIONS OF 1973 DOLLARS)
(**THOUSANDS OF PEOPLE)

		9/3/74 COSTS*	EPA COSTS*	1990 POPULATION**	9/3/74 COSTS PER CAPITA	EPA COSTS PER CAPITA	CHANGE IN PER CAPITA COSTS
REGION I	CONNECTICUT	1,620	1,594	3,946	$410	$403	-7
	MAINE	597	575	1,142	$522	$503	-19
	MASSACHUSETTS	3,375	2,964	7,052	$478	$420	-58
	NEW HAMPSHIRE	876	740	907	$965	$815	-150
	RHODE ISLAND	517	447	1,134	$455	$394	-61
	VERMONT	220	204	536	$410	$380	-30
REGION II	NEW JERSEY	4,689	4,894	8,822	$532	$554	+32
	NEW YORK	17,318	15,302	21,799	$794	$701	-93
	PUERTO RICO	665	603	0	$0	$0	+0
	VIRGIN ISLANDS	45	44	0	$0	$0	+0
REGION III	DELAWARE	547	546	793	$689	$688	-1
	MARYLAND	3,909	3,692	5,318	$735	$684	-51
	VIRGINIA	2,182	1,884	5,958	$366	$316	-50
	WEST VIRGINIA	4,259	2,360	1,845	$2,308	$1,279	-1,029
	PENNSYLVANIA	5,579	5,454	13,332	$418	$409	-9
	DISTRICT OF COLUMBIA	1,054	1,052	764	$1,379	$1,376	-3
REGION IV	ALABAMA	707	778	3,850	$183	$202	+19
	FLORIDA	3,568	2,704	11,728	$304	$230	-74
	GEORGIA	1,585	1,519	5,667	$279	$268	-11
	KENTUCKY	2,814	1,824	3,741	$538	$487	-51
	MISSISSIPPI	433	494	2,359	$183	$209	+26
	NORTH CAROLINA	1,434	1,480	5,880	$243	$251	+8
	SOUTH CAROLINA	1,012	977	3,023	$334	$323	-11
	TENNESSEE	1,308	1,210	4,800	$272	$252	-20
REGION V	ILLINOIS	4,945	6,234	13,177	$375	$473	+98
	INDIANA	3,884	2,993	6,633	$586	$451	-15
	MICHIGAN	5,323	8,102	10,961	$485	$739	+254
	MINNESOTA	1,347	1,330	4,577	$294	$290	-4
	OHIO	7,646	7,773	13,202	$579	$588	+9
	WISCONSIN	2,311	2,044	5,218	$442	$391	-51
REGION VI	ARKANSAS	1,338	898	2,068	$647	$434	-213
	LOUISIANA	1,524	1,283	4,159	$366	$308	-58
	NEW MEXICO	156	155	1,232	$126	$125	-1
	TEXAS	3,854	3,222	13,666	$282	$235	-47
	OKLAHOMA	2,071	1,484	2,942	$703	$504	-199
REGION VII	IOWA	991	911	3,053	$324	$298	-26
	KANSAS	2,518	1,783	2,509	$1,003	$710	-293
	MISSOURI	2,369	2,298	5,488	$431	$418	-13
	NEBRASKA	984	924	1,562	$629	$591	-38
REGION VIII	COLORADO	713	409	2,848	$250	$143	-107
	MONTANA	129	127	714	$180	$177	-3
	NORTH DAKOTA	204	169	606	$336	$311	-25
	SOUTH DAKOTA	77	75	643	$119	$116	-3
	UTAH	295	291	1,509	$195	$192	-3
	WYOMING	133	84	600	$221	$140	-81
REGION IX	ARIZONA	613	500	3,384	$181	$147	-34
	CALIFORNIA	6,997	6,208	28,681	$243	$233	-38
	HAWAII *	520	523	1,010	$514	$517	+3
	NEVADA	316	289	933	$338	$224	-114
	AMERICAN SAMOA	55	36	0	$0	$0	+0
	GUAM	116	93	275	$421	$338	-83
	TRUST TERRITORIES	190	195	205	$926	$951	+25
REGION X	ALASKA	299	405	408	$732	$992	+260
	IDAHO	477	393	758	$629	$518	-111
	OREGON	1,144	1,081	2,963	$388	$367	-21
	WASHINGTON	2,415	1,838	4,194	$575	$437	-138
TOTAL!		114,587	107,314	252,274	$453	$425	-28

TABLE SP-5 PER CAPITA COSTS REPORTED FOR TREATMENT AND/OR CONTROL OF STORMWATERS (CATEGORY VI) February 10, 1975

	Total Cost	1990 Population (Thousands)	Per Capita Costs
TOTALS	239,406	259,045	918
REGION I			
Connecticut	2,667	3,948	676
Maine	294	1,130	260
Massachusetts	4,153	5,828	713
New Hampshire	214	807	265
Rhode Island	907	1,133	801
Vermont	147	540	274
REGION II			
New Jersey	7,665	8,803	871
New York	28,194	17,727	1,591
Puerto Rico	392	4,776	82
Virgin Islands	44	110	400
REGION III			
Delaware	608	724	840
Maryland	8,430	4,430	1,903
Virginia	12,444	6,000	2,074
West Virginia	1,800	1,800	1,000
Pennsylvania	3,793	11,800	321
Dist.of Columbia	1,000	764	1,309
REGION IV			
Alabama	1,220	3,800	321
Florida	7,540	12,000	628
Georgia	2,000	6,000	333
Kentucky	1,200	3,700	324
Miss.sound	400	2,000	200
North Carolina	6,000	5,000	1,200
South Carolina	4,000	3,000	1,333
Tennessee	4,000	4,800	833
REGION V			
Illinois	2,000	14,000	143
Indiana	1,200	7,000	171
Michigan	1,800	10,000	180
Minnesota	1,000	4,000	250
Ohio	2,000	11,000	182
Wisconsin	1,200	5,000	240
REGION VI			
Arkansas	1,667	2,000	834
Louisiana	5,000	5,000	1,000
New Mexico	500	1,000	500
Texas	22,000	17,000	1,294
Oklahoma	1,000	3,000	333
REGION VII			
Iowa	1,000	3,000	333
Kansas	1,000	2,000	500
Missouri	1,000	5,000	200
Nebraska	600	1,500	400
REGION VIII			
Colorado	No Needs	2,000	-
Montana	600	700	857
North Dakota	300	600	500
South Dakota	200	600	333
Utah	400	1,000	400
Wyoming	No Needs	400	-
REGION IX			
Arizona	No Needs	1,500	-
California	23,000	20,000	1,150
Hawaii	10,000	2,000	5,000
Nevada	No Needs	400	-
American Samoa	4	20	1,000
Guam	200	200	1,000
Trust Territories	No Needs	200	-
REGION X			
Alaska	500	400	1,250
Idaho	400	700	571
Oregon	800	2,000	400
Washington	1,200	4,000	300

TABLE SC - 1 — CORRECTED STATE ESTIMATE — FEBRUARY 10, 1975

1974 COSTS* REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(MILLIONS OF 1973 DOLLARS)

			CATEGORIES							
		TOTAL	I SECONDARY TREATMENT	II MORE STRINGENT TREATMENT	III A CORR. INFIL./ INFLOW	III B MAJOR REHAB	IV A NEW COLLECTOR SEWERS	IV B NEW INTER-CEPTO	V COMBINED SEWER OVERFLOW
REGION I	CONNECTICUT	1,598	171	94	21	38	328	213	738
	MAINE	589	130	4	1	2	113	139	196
	MASSACHUSETTS	3,085	713	238	33	25	914	542	824
	NEW HAMPSHIRE	861	158	95	23	6	218	218	147
	RHODE ISLAND	478	49	37	3	0	177	123	87
	VERMONT	215	33	64	9	0	36	36	35
REGION II	NEW JERSEY	5,018	1,129	589	199	174	611	929	1,377
	NEW YORK	17,421	944	2,347	589	2,341	4,244	2,031	5,004
	PUERTO RICO	804	181	0	14	0	283	187	17
	VIRGIN ISLANDS	45	13	0	1	0	12	18	0
REGION III	DELAWARE	547	65	34	188	67	65	100	114
	MARYLAND	3,732	18	1,788	47	1,132	140	872	27
	VIRGINIA	2,128	456	379	298	49	287	459	200
	WEST VIRGINIA	1,225	186	335	145	5	1,746	1,042	194
	PENNSYLVANIA	5,730	946	285	91	48	1,268	851	2,439
	DISTRICT OF COLUMBIA	1,093	0	67	48	216	0	2	720
REGION IV	ALABAMA	819	114	165	182	11	233	193	0
	FLORIDA	3,526	612	851	45	44	1,282	911	0
	GEORGIA	1,595	208	588	12	2	284	319	283
	KENTUCKY	1,862	51	243	53	63	444	355	652
	MISSISSIPPI	495	35	202	45	31	57	122	1
	NORTH CAROLINA	1,931	211	451	52	0	434	382	0
	SOUTH CAROLINA	1,128	348	46	21	0	269	358	0
	TENNESSEE	1,481	112	293	46	39	418	276	114
REGION V	ILLINOIS	6,301	317	1,653	176	98	511	384	3,188
	INDIANA	2,968	216	379	151	185	338	302	1,397
	MICHIGAN	8,199	117	673	96	456	1,082	969	4,886
	MINNESOTA	1,387	63	451	52	14	284	233	388
	OHIO	7,920	219	1,325	637	114	825	935	4,062
	WISCONSIN	2,291	188	417	79	134	419	438	621
REGION VI	ARKANSAS	1,583	0	597	88	0	583	332	1
	LOUISIANA	1,936	353	3	352	97	439	289	0
	NEW MEXICO	156	52	7	3	1	54	38	0
	TEXAS	3,792	9	2,144	287	214	660	399	118
	OKLAHOMA	3,684	0	565	55	551	1,808	685	0
REGION VII	IOWA	965	154	289	123	9	122	222	125
	KANSAS	2,348	248	66	572	318	765	272	113
	MISSOURI	2,399	471	75	219	0	375	388	870
	NEBRASKA	977	183	18	38	2	39	65	630
REGION VIII	COLORADO	716	112	188	29	24	122	212	29
	MONTANA	128	39	16	5	1	21	35	7
	NORTH DAKOTA	195	51	0	1	0	67	23	50
	SOUTH DAKOTA	78	33	32	1	0	3	7	0
	UTAH	294	195	0	14	2	58	23	0
	WYOMING	133	61	0	0	0	55	15	0
REGION IX	ARIZONA	397	159	0	1	1	327	99	0
	CALIFORNIA	7,156	1,291	2,344	366	47	959	1,245	902
	HAWAII	528	203	27	0	0	81	209	0
	NEVADA	216	42	102	1	0	125	45	0
	AMERICAN SAMOA	37	0	0	0	0	28	0	0
	GUAM	117	36	9	2	0	53	15	0
	TRUST TERRITORIES	197	90	18	1	0	60	25	0
REGION X	ALASKA	412	234	0	4	1	77	85	9
	IDAHO	471	46	71	22	16	179	99	35
	OREGON	1,144	146	1	56	324	191	181	262
	WASHINGTON	2,371	515	181	91	454	548	344	316
TOTAL		121,153	12,628	20,330	5,348	7,338	24,583	19,740	31,192

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FEBRUARY 10, 1975

CORRECTED STATE ESTIMATE
STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(CATEGORIES I, II, III, IVA, IVB AND V)
(*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		STATE CORRECTED	EPA ASSESSMENT	CHANGE	STATE CORRECTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	1,598	1,594	-4	1.3192	1.4857	+0.1664
	MAINE	589	575	-14	0.4864	0.5367	+0.0502
	MASSACHUSETTS	3,285	2,964	-321	2.7119	2.7629	+0.0513
	NEW HAMPSHIRE	861	740	-121	0.7109	0.6899	-0.0209
	RHODE ISLAND	478	447	-31	0.3947	0.4171	+0.0221
	VERMONT	215	204	-11	0.1776	0.1907	+0.0130
REGION II	NEW JERSEY	5,010	4,894	-116	4.1357	4.5684	+0.4246
	NEW YORK	17,421	15,302	-2,119	14.3794	14.2591	-0.1202
	PUERTO RICO	604	603	-1	0.4986	0.5621	+0.0634
	VIRGIN ISLANDS	45	44	-1	0.0371	0.0411	+0.0039
REGION III	DELAWARE	547	546	-1	0.4516	0.5091	+0.0575
	MARYLAND	3,932	3,642	-290	3.2465	3.3951	+0.1485
	VIRGINIA	2,128	1,884	-244	1.7565	1.7562	-0.0002
	WEST VIRGINIA	4,225	2,360	-1,865	3.4879	2.1997	-1.2881
	PENNSYLVANIA	5,730	5,454	-276	4.7303	5.0858	+0.3555
	DISTRICT OF COLUMBIA	1,053	1,052	-1	0.8695	0.9810	+0.1114
REGION IV	ALABAMA	819	778	-41	0.6763	0.7256	+0.0492
	FLORIDA	3,526	2,704	-822	2.9108	2.5201	-0.3906
	GEORGIA	1,595	1,519	-76	1.3167	1.4157	+0.0989
	KENTUCKY	1,862	1,824	-38	1.5377	1.6998	+0.1620
	MISSISSIPPI	495	494	-1	0.4090	0.4609	+0.0518
	NORTH CAROLINA	1,531	1,480	-51	1.2641	1.3795	+0.1153
	SOUTH CAROLINA	1,028	977	-51	0.8488	0.9107	+0.0618
	TENNESSEE	1,381	1,210	-91	1.0734	1.1275	+0.0539
REGION V	ILLINOIS	6,381	6,234	-67	5.2711	5.8096	+0.5384
	INDIANA	2,968	2,903	-65	2.4505	2.7056	+0.2550
	MICHIGAN	8,199	8,102	-97	6.7675	7.5501	+0.7825
	MINNESOTA	1,387	1,330	-57	1.1454	1.2393	+0.0938
	OHIO	7,928	7,773	-147	6.5473	7.2439	+0.7065
	WISCONSIN	2,291	2,044	-247	1.8912	1.9047	+0.0134
REGION VI	ARKANSAS	1,503	898	-605	1.2410	0.8374	-0.4035
	LOUISIANA	1,536	1,283	-253	1.2684	1.1961	-0.0722
	NEW MEXICO	156	155	-1	0.1295	0.1452	+0.0156
	TEXAS	3,752	3,222	-530	3.0976	3.0027	-0.0948
	OKLAHOMA	3,664	1,484	-2,180	3.0247	1.3828	-1.6418
REGION VII	IOWA	965	911	-54	0.7968	0.8495	+0.0526
	KANSAS	2,348	1,783	-565	1.9383	1.6619	-0.2765
	MISSOURI	2,399	2,298	-101	1.9805	2.1419	+0.1613
	NEBRASKA	977	924	-53	0.8067	0.8610	+0.0542
REGION VIII	COLORADO	716	409	-307	0.5911	0.3814	-0.2098
	MONTANA	128	127	-1	0.1062	0.1183	+0.0120
	NORTH DAKOTA	195	189	-6	0.1610	0.1764	+0.0153
	SOUTH DAKOTA	78	75	-3	0.0644	0.0705	+0.0060
	UTAH	294	291	-3	0.2433	0.2716	+0.0282
	WYOMING	133	84	-49	0.1097	0.0784	-0.0312
REGION IX	ARIZONA	597	500	-97	0.4930	0.4667	-0.0262
	CALIFORNIA	7,156	6,208	-948	5.9071	5.7856	-0.1214
	HAWAII	520	523	+3	0.4294	0.4875	+0.0581
	NEVADA	316	209	-107	0.2612	0.1950	-0.0661
	AMERICAN SAMOA	37	36	-1	0.0310	0.0338	+0.0027
	GUAM	117	93	-24	0.0972	0.0871	-0.0100
	TRUST TERRITORIES	197	195	-2	0.1626	0.1821	+0.0194
REGION X	ALASKA	412	405	-7	0.3400	0.3774	+0.0365
	IDAHO	471	393	-78	0.3889	0.3663	-0.0230
	OREGON	1,144	1,081	-63	0.9443	1.0077	+0.0633
	WASHINGTON	2,371	1,836	-535	1.9574	1.7108	-0.2465
TOTAL!		121,153	107,314	-13,839	100.0000	100.0000	+0.0000

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FEBRUARY 18, 1975

CORRECTED STATE ESTIMATE

STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS
(CATEGORIES I, II, IVB AND IVB)
(MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		STATE CORRECTED	EPA ASSESSMENT	CHANGE	STATE CORRECTED	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	478	484	+6	0.9089	1.0475	+0.1386
	MAINE	274	273	-1	0.5212	0.5908	+0.0695
	MASSACHUSETTS	1,085	1,325	+240	2.0629	2.8677	+0.8048
	NEW HAMPSHIRE	171	384	+87	0.3254	0.8310	+0.5056
	RHODE ISLAND	209	187	-22	0.3958	0.4047	+0.0078
	VERMONT	132	125	-7	0.2510	0.2705	+0.0195
REGION II	NEW JERSEY	2,647	2,602	-45	5.0330	5.6315	+0.6078
	NEW YORK	5,322	4,603	-719	10.0299	9.9623	-0.1376
	PUERTO RICO	368	368	+0	0.6999	0.7964	+0.0964
	VIRGIN ISLANDS	31	31	+0	0.0589	0.0670	+0.0081
REGION III	DELAWARE	288	199	-1	0.3385	0.4308	+0.0923
	MARYLAND	2,583	2,324	-259	4.9107	5.0298	+0.1270
	VIRGINIA	1,296	1,129	-165	2.4639	2.4435	-0.0133
	WEST VIRGINIA	2,133	1,320	-813	4.0496	2.8566	-1.1929
	PENNSYLVANIA	1,863	1,629	-234	3.5435	3.5256	-0.0178
	DISTRICT OF COLUMBIA	69	69	+0	0.1303	0.1493	+0.0189
REGION IV	ALABAMA	472	472	+0	0.8959	1.0215	+0.1255
	FLORIDA	2,174	1,874	-300	4.1285	4.0539	-0.0745
	GEORGIA	1,027	1,020	-7	1.9491	2.2076	+0.2585
	KENTUCKY	849	849	+0	1.6133	1.8046	+0.1712
	MISSISSIPPI	359	359	+0	0.6820	0.7769	+0.0949
	NORTH CAROLINA	1,044	1,044	+0	1.9827	2.2593	+0.2767
	SOUTH CAROLINA	737	728	-9	1.3990	1.5756	+0.1765
	TENNESSEE	681	677	-4	1.2930	1.4652	+0.1715
REGION V	ILLINOIS	2,364	2,343	-21	4.4876	5.0709	+0.5832
	INDIANA	898	837	-61	1.7049	1.8115	+0.1074
	MICHIGAN	1,759	1,673	-86	3.3391	3.6208	+0.2820
	MINNESOTA	748	707	-41	1.4201	1.5301	+0.1099
	OHIO	2,480	2,367	-113	4.7061	5.1227	+0.4167
	WISCONSIN	1,035	939	-96	1.9650	2.0322	+0.0663
REGION VI	ARKANSAS	930	582	-348	1.7654	1.2596	-0.5057
	LOUISIANA	646	499	-147	1.2264	1.0799	-0.1466
	NEW MEXICO	98	97	-1	0.1859	0.2099	+0.0239
	TEXAS	2,552	2,025	-527	4.8438	4.3827	-0.4602
	OKLAHOMA	1,251	662	-589	2.3744	1.4327	-0.9416
REGION VII	IOWA	585	532	-53	1.1110	1.1514	+0.0401
	KANSAS	578	524	-54	1.0974	1.1341	+0.0361
	MISSOURI	927	843	-84	1.7596	1.8255	+0.0656
	NEBRASKA	266	227	-39	0.5051	0.4912	-0.0140
REGION VIII	COLORADO	513	259	-254	0.9734	0.5605	-0.4128
	MONTANA	91	90	-1	0.1729	0.1947	+0.0207
	NORTH DAKOTA	75	74	-1	0.1435	0.1601	+0.0165
	SOUTH DAKOTA	73	72	-1	0.1393	0.1558	+0.0164
	UTAH	219	218	-1	0.4166	0.4718	+0.0551
	WYOMING	77	55	-22	0.1462	0.1190	-0.0271
REGION IX	ARIZONA	266	266	+0	0.5057	0.5757	+0.0699
	CALIFORNIA	4,880	4,104	-776	9.2621	8.8823	-0.3797
	HAWAII	439	439	+0	0.8340	0.9501	+0.1160
	NEVADA	189	177	-12	0.3602	0.3830	+0.0227
	AMERICAN SAMOA	8	7	-1	0.0150	0.0151	+0.0001
	GUAM	61	60	-1	0.1172	0.1298	+0.0126
	TRUST TERRITORIES	134	133	-1	0.2554	0.2878	+0.0324
REGION X	ALASKA	328	319	-1	0.6073	0.6904	+0.0830
	IDAHO	217	216	-1	0.4127	0.4674	+0.0546
	OREGON	308	308	+0	0.5858	0.6666	+0.0807
	WASHINGTON	961	675	-286	1.8230	1.4604	-0.3626
TOTAL:		52,698	46,204	-6,494	100.0000	100.0000	+0.0000

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CORRECTED STATE ESTIMATE

FEBRUARY '8, 1975

PER CAPITA COSTS REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES
BASED ON 1990 POPULATION
(CATEGORIES I, II, III, IV A, IV B, AND V)
(*MILLIONS OF 1973 DOLLARS)
(**THOUSANDS OF PEOPLE)

		STATE COSTS*	EPA COSTS*	1990 POPULATION**	STATE COSTS PER CAPITA	EPA COSTS PER CAPITA	CHANGE IN PER CAPITA COSTS
REGION I	CONNECTICUT	1,598	1,594	3,966	$404	$403	-1
	MAINE	589	575	1,142	$515	$503	-12
	MASSACHUSETTS	3,285	2,904	7,652	$429	$379	-50
	NEW HAMPSHIRE	861	748	987	$872	$758	-114
	RHODE ISLAND	478	447	1,134	$421	$394	-27
	VERMONT	215	204	536	$401	$380	-21
REGION II	NEW JERSEY	5,010	4,899	8,822	$567	$554	-13
	NEW YORK	17,421	15,382	21,799	$799	$701	-98
	PUERTO RICO	604	603	0	$0	$0	+0
	VIRGIN ISLANDS	45	44	0	$0	$0	+0
REGION III	DELAWARE	547	546	793	$689	$688	-1
	MARYLAND	3,932	3,876	5,118	$739	$684	-55
	VIRGINIA	2,168	1,889	5,958	$337	$316	-21
	WEST VIRGINIA	4,225	2,388	1,845	$2,289	$1,279	-1,010
	PENNSYLVANIA	5,738	5,454	13,322	$409	$389	-20
	DISTRICT OF COLUMBIA	1,053	1,052	764	$1,378	$1,376	-2
REGION IV	ALABAMA	819	778	3,858	$212	$202	-10
	FLORIDA	3,526	2,704	11,728	$300	$230	-70
	GEORGIA	1,595	1,519	5,667	$281	$268	-13
	KENTUCKY	1,862	1,824	3,741	$497	$487	-10
	MISSISSIPPI	495	494	2,359	$209	$209	+0
	NORTH CAROLINA	1,531	1,480	5,880	$260	$251	-9
	SOUTH CAROLINA	1,026	977	3,023	$340	$323	-17
	TENNESSEE	1,381	1,218	4,908	$271	$252	-19
REGION V	ILLINOIS	6,381	6,234	13,177	$478	$473	-5
	INDIANA	2,968	2,903	6,433	$461	$451	-10
	MICHIGAN	8,199	8,102	10,961	$748	$739	-9
	MINNESOTA	1,387	1,339	4,577	$303	$290	-13
	OHIO	7,928	7,773	13,782	$599	$588	-11
	WISCONSIN	2,291	2,044	5,218	$439	$391	-48
REGION VI	ARKANSAS	1,503	898	2,968	$726	$434	-292
	LOUISIANA	1,536	1,283	4,159	$369	$308	-61
	NEW MEXICO	156	155	1,232	$126	$125	-1
	TEXAS	3,752	3,222	13,666	$274	$235	-39
	OKLAHOMA	3,884	1,489	2,942	$1,245	$504	-741
REGION VII	IOWA	965	911	3,053	$316	$298	-18
	KANSAS	2,348	1,783	2,509	$935	$710	-225
	MISSOURI	2,399	2,298	5,488	$437	$418	-19
	NEBRASKA	977	924	1,582	$665	$591	-34
REGION VIII	COLORADO	716	489	2,948	$251	$143	-108
	MONTANA	120	107	714	$179	$177	-2
	NORTH DAKOTA	195	189	606	$361	$311	-10
	SOUTH DAKOTA	78	75	643	$161	$116	-5
	UTAH	294	291	1,589	$194	$192	-2
	WYOMING	133	84	600	$261	$140	-81
REGION IX	ARIZONA	597	580	3,384	$176	$147	-29
	CALIFORNIA	7,156	6,208	26,601	$269	$233	-36
	HAWAII	528	503	1,010	$514	$517	+3
	NEVADA	316	209	933	$338	$224	-114
	AMERICAN SAMOA	37	36	0	$0	$0	+0
	GUAM	117	93	275	$465	$338	-87
	TRUST TERRITORIES	197	193	285	$960	$951	-9
REGION X	ALASKA	412	405	408	$1,009	$992	-17
	IDAHO	471	393	758	$621	$518	-103
	OREGON	1,144	1,041	2,943	$388	$367	-21
	WASHINGTON	2,371	1,838	4,194	$565	$437	-128
TOTALS		121,153	107,314	252,274	$480	$425	-55

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FEBRUARY 10, 1975

EPA ESTIMATE

1974 COSTS* REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES

(MILLIONS OF 1973 DOLLARS)

			CATEGORIES						
		TOTAL	I SECONDARY TREATMENT	II MORE STRINGENT TREATMENT	III A CORR. INFILT./ INFLOW	III B MAJOR REHAB	IV A NEW COLLECTOR SEWERS	IV B NEW INTER-CEPTORS	V COMBINED SEWER OVERFLOW
REGION I	CONNECTICUT	1,394	171	94	21	38	311	213	738
	MAINE	575	130	4	1	2	102	139	195
	MASSACHUSETTS	2,984	547	205	33	25	752	533	829
	NEW HAMPSHIRE	748	125	95	23	8	184	164	157
	RHODE ISLAND	447	45	34	3	8	107	108	87
	VERMONT	284	31	60	9	8	33	34	39
REGION II	NEW JERSEY	4,894	1,127	571	199	174	540	904	1,377
	NEW YORK	15,182	1,863	994	589	2,491	2,863	1,948	5,009
	PUERTO RICO	883	181	0	14	0	283	187	17
	VIRGIN ISLANDS	44	13	0	1	0	12	18	0
REGION III	DELAWARE	548	65	34	188	67	63	108	119
	MARYLAND	3,547	18	1,065	51	1,132	107	849	27
	VIRGINIA	1,884	364	317	298	32	228	448	206
	WEST VIRGINIA	2,388	91	151	145	5	695	1,078	199
	PENNSYLVANIA	5,434	742	265	91	48	1,248	822	2,439
	DISTRICT OF COLUMBIA	1,452	0	67	40	216	0	2	726
REGION IV	ALABAMA	778	114	165	182	11	192	193	0
	FLORIDA	2,784	566	452	39	44	748	856	0
	GEORGIA	1,319	208	501	12	2	208	319	283
	KENTUCKY	1,824	51	243	53	63	408	355	652
	MISSISSIPPI	494	35	282	45	31	57	122	1
	NORTH CAROLINA	1,488	211	451	52	8	383	382	0
	SOUTH CAROLINA	977	333	45	21	8	227	350	0
	TENNESSEE	1,218	112	293	45	39	336	272	119
REGION V	ILLINOIS	6,234	314	1,635	176	68	466	394	3,168
	INDIANA	2,903	208	348	151	185	336	289	1,347
	MICHIGAN	8,102	106	598	98	456	992	969	4,884
	MINNESOTA	1,338	59	419	52	14	188	233	368
	OHIO	7,773	214	1,382	637	114	592	851	4,062
	WISCONSIN	2,944	184	373	79	134	382	402	508
REGION VI	ARKANSAS	498	0	331	88	0	248	251	1
	LOUISIANA	1,283	302	6	352	97	333	191	0
	NEW MEXICO	195	52	7	3	1	54	38	0
	TEXAS	3,222	9	1,617	287	214	857	399	118
	OKLAHOMA	1,484	0	488	55	551	214	256	0
REGION VII	IOWA	911	132	178	121	9	121	222	129
	KANSAS	1,183	185	67	536	294	316	272	113
	MISSOURI	2,498	408	63	219	0	358	380	870
	NEBRASKA	924	144	18	38	1	28	65	630
REGION VIII	COLORADO	489	78	66	29	24	74	115	23
	MONTANA	127	39	14	5	1	21	35	7
	NORTH DAKOTA	189	51	0	1	0	63	23	50
	SOUTH DAKOTA	75	33	32	1	0	2	7	0
	UTAH	491	195	0	14	2	57	23	0
	WYOMING	84	48	0	0	0	28	15	0
REGION IX	ARIZONA	388	159	8	1	1	231	99	0
	CALIFORNIA	6,288	1,713	1,242	343	47	812	1,149	982
	HAWAII	523	283	27	0	0	84	289	0
	NEVADA	289	38	182	1	0	31	45	0
	AMERICAN SAMOA	36	5	0	0	0	28	2	0
	GUAM	93	36	9	2	0	31	15	0
	TRUST TERRITORIES	195	98	18	1	0	60	25	0
REGION X	ALASKA	485	234	0	4	1	78	85	9
	IDAHO	393	46	71	22	16	182	99	35
	OREGON	1,881	146	1	96	324	130	161	262
	WASHINGTON	1,938	283	56	91	454	299	336	318
TOTAL:		187,314	12,635	15,720	5,287	7,287	17,458	17,849	31,078

TABLE EPA - 2

FEBRUARY 10, 1975

EPA ESTIMATED

STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED WASTEWATER TREATMENT FACILITIES
(CATEGORIES I, II, III, IVA, IVB AND V)
(MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		1973 SURVEY	EPA ASSESSMENT	CHANGE	1973 SURVEY	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	1,409	1,594	+185	2.3435	1.4857	-0.8577
	MAINE	364	575	+211	0.6054	0.5367	-0.0686
	MASSACHUSETTS	1,485	2,964	+1,479	2.4699	2.7629	+0.2929
	NEW HAMPSHIRE	508	740	+232	0.8449	0.6899	-0.1549
	RHODE ISLAND	367	447	+80	0.6104	0.4171	-0.1932
	VERMONT	168	204	+36	0.2794	0.1907	-0.0886
REGION II	NEW JERSEY	3,382	4,894	+1,512	5.6251	4.5604	-1.0646
	NEW YORK	9,032	15,302	+7,270	13.3592	14.2591	+0.8998
	PUERTO RICO	590	603	+13	0.9813	0.5621	-0.4191
	VIRGIN ISLANDS	44	44	+0	0.0731	0.0411	-0.0319
REGION III	DELAWARE	329	546	+217	0.5472	0.5091	-0.0380
	MARYLAND	681	3,642	+2,961	1.1326	3.3941	+2.2614
	VIRGINIA	1,345	1,884	+539	2.2370	1.7562	-0.4807
	WEST VIRGINIA	614	2,360	+1,746	1.0212	2.1997	+1.1784
	PENNSYLVANIA	4,210	5,454	+1,244	7.0023	5.0826	-1.9196
	DISTRICT OF COLUMBIA	1,081	1,052	-29	1.7979	0.9810	-0.8168
REGION IV	ALABAMA	444	778	+334	0.7384	0.7256	-0.0127
	FLORIDA	2,371	2,704	+333	3.9435	2.5201	-1.4233
	GEORGIA	1,031	1,519	+488	1.7148	1.4157	-0.2990
	KENTUCKY	1,032	1,824	+792	1.7164	1.6998	-0.0165
	MISSISSIPPI	268	494	+226	0.4457	0.4609	+0.0151
	NORTH CAROLINA	980	1,480	+580	1.4969	1.3795	-0.1173
	SOUTH CAROLINA	757	977	+220	1.2590	0.9107	-0.3482
	TENNESSEE	695	1,210	+515	1.1559	1.1275	-0.0283
REGION V	ILLINOIS	4,089	6,234	+2,145	6.8010	5.8096	-0.9913
	INDIANA	1,040	2,903	+1,863	1.7297	2.7056	+0.9758
	MICHIGAN	3,325	8,102	+4,777	5.5303	7.5501	+2.0197
	MINNESOTA	1,065	1,330	+265	1.7713	1.2393	-0.5319
	OHIO	2,833	7,773	+4,940	4.7120	7.2439	+2.5318
	WISCONSIN	787	2,044	+1,257	1.3089	1.9047	+0.5957
REGION VI	ARKANSAS	355	898	+543	0.5904	0.8374	+0.2469
	LOUISIANA	451	1,283	+832	0.7501	1.1963	+0.4461
	NEW MEXICO	115	155	+40	0.1912	0.1452	-0.0459
	TEXAS	888	3,222	+2,334	1.4769	3.0027	+1.5257
	OKLAHOMA	624	1,484	+860	1.0378	1.3828	+0.3449
REGION VII	IOWA	582	911	+409	0.8349	0.8495	+0.0145
	KANSAS	671	1,783	+1,112	1.1160	1.6619	+0.5458
	MISSOURI	972	2,298	+1,326	1.6166	2.1419	+0.5252
	NEBRASKA	404	924	+520	0.6719	0.8610	+0.1890
REGION VIII	COLORADO	426	409	-17	0.7085	0.3819	-0.3265
	MONTANA	74	127	+53	0.1230	0.1183	-0.0046
	NORTH DAKOTA	46	189	+143	0.0765	0.1764	+0.0998
	SOUTH DAKOTA	43	75	+32	0.0715	0.0705	-0.0009
	UTAH	225	291	+66	0.3742	0.2716	-0.1025
	WYOMING	40	84	+44	0.0665	0.0784	+0.0118
REGION IX	ARIZONA	238	500	+262	0.3958	0.4667	+0.0708
	CALIFORNIA	6,058	6,208	+158	10.0827	5.7856	-4.2770
	HAWAII	523	523	+0	0.8698	0.4875	-0.3822
	NEVADA	227	209	-18	0.3775	0.1950	-0.1824
	AMERICAN SAMOA	8	36	+28	0.0133	0.0338	+0.0204
	GUAM	22	93	+71	0.0365	0.0871	+0.0505
	TRUST TERRITORIES	8	195	+187	0.0133	0.1821	+0.1687
REGION X	ALASKA	205	405	+200	0.3409	0.3774	+0.0364
	IDAHO	112	393	+281	0.1862	0.3663	+0.1800
	OREGON	568	1,081	+513	0.9447	1.0077	+0.0629
	WASHINGTON	1,088	1,836	+756	1.7963	1.7108	-0.0854
TOTAL!		60,123	107,314	+47,191	100.0000	100.0000	+0.0000

TABLE EPA - 3

EPA ESTIMATE

FEBRUARY 10, 1975

STATE NEEDS AND PERCENTAGE OF NATIONAL COSTS*
REPORTED FOR CONSTRUCTION OF TREATMENT PLANTS AND INTERCEPTORS
(CATEGORIES I, II, AND IV B)
(*MILLIONS OF 1973 DOLLARS)

		COSTS*			PERCENTAGE OF NATIONAL TOTALS		
		1973 SURVEY	EPA ASSESSMENT	CHANGE	1973 SURVEY	EPA ASSESSMENT	CHANGE
REGION I	CONNECTICUT	430	484	+54	1.1974	1.0475	-0.1498
	MAINE	260	273	+13	0.7240	0.5908	-0.1331
	MASSACHUSETTS	761	1,325	+564	2.1191	2.8677	+0.7485
	NEW HAMPSHIRE	239	384	+45	0.9440	0.8310	-0.1129
	RHODE ISLAND	162	187	+25	0.4511	0.4047	-0.0463
	VERMONT	115	125	+10	0.3202	0.2705	-0.0496
REGION II	NEW JERSEY	2,630	2,602	-28	7.3238	5.6315	-1.6922
	NEW YORK	4,165	4,603	+438	11.5984	9.9623	-1.6360
	PUERTO RICO	394	368	-26	1.0971	0.7964	-0.3006
	VIRGIN ISLANDS	32	31	-1	0.0891	0.0670	-0.0220
REGION III	DELAWARE	201	199	-2	0.5597	0.4306	-0.1290
	MARYLAND	583	2,324	+1,741	1.6235	5.0298	+3.4062
	VIRGINIA	998	1,129	+131	2.7791	2.4435	-0.3355
	WEST VIRGINIA	323	1,320	+997	0.8994	2.8568	+1.9573
	PENNSYLVANIA	1,555	1,629	+74	4.3302	3.5256	-0.8045
	DISTRICT OF COLUMBIA	52	69	+17	0.1448	0.1493	+0.0044
REGION IV	ALABAMA	310	472	+162	0.8632	1.0215	+0.1582
	FLORIDA	1,590	1,874	+284	4.4277	4.0559	-0.3717
	GEORGIA	777	1,020	+243	2.1637	2.2076	+0.0438
	KENTUCKY	573	649	+76	1.5956	1.4046	-0.1909
	MISSISSIPPI	223	359	+136	0.6209	0.7769	+0.1559
	NORTH CAROLINA	749	1,044	+295	2.0857	2.2595	+0.1737
	SOUTH CAROLINA	569	728	+159	1.5845	1.5756	-0.0088
	TENNESSEE	467	677	+210	1.3004	1.4652	+0.1647
REGION V	ILLINOIS	2,167	2,343	+176	6.0345	5.0709	-0.9635
	INDIANA	542	837	+295	1.5093	1.8115	+0.3021
	MICHIGAN	1,460	1,673	+213	4.0657	3.6208	-0.4448
	MINNESOTA	538	707	+169	1.4981	1.5301	+0.0319
	OHIO	1,841	2,367	+526	5.1267	5.1229	-0.0037
	WISCONSIN	486	939	+453	1.3533	2.0322	+0.6788
REGION VI	ARKANSAS	224	582	+358	0.6237	1.2596	+0.6358
	LOUISIANA	251	499	+248	0.6984	1.0799	+0.3809
	NEW MEXICO	66	97	+31	0.1837	0.2099	+0.0261
	TEXAS	656	2,025	+1,369	1.8267	4.3827	+2.5559
	OKLAHOMA	485	662	+177	1.3505	1.4327	+0.0821
REGION VII	IOWA	421	532	+111	1.1723	1.1514	-0.0208
	KANSAS	332	524	+192	0.9245	1.1341	+0.2095
	MISSOURI	780	843	+63	2.1720	1.8245	-0.3474
	NEBRASKA	141	227	+86	0.3926	0.4912	+0.0985
REGION VIII	COLORADO	310	259	-51	0.8632	0.5605	-0.3026
	MONTANA	59	90	+31	0.1642	0.1947	+0.0304
	NORTH DAKOTA	30	74	+44	0.0835	0.1601	+0.0765
	SOUTH DAKOTA	40	72	+32	0.1113	0.1558	+0.0444
	UTAH	178	218	+48	0.4734	0.4718	-0.0015
	WYOMING	30	55	+25	0.0835	0.1190	+0.0354
REGION IX	ARIZONA	152	266	+114	0.4232	0.5757	+0.1524
	CALIFORNIA	4,743	4,104	-639	13.2080	8.8823	-4.3256
	HAWAII	439	439	+0	1.2225	0.9501	-0.2723
	NEVADA	205	177	-28	0.5708	0.3830	-0.1877
	AMERICAN SAMOA	7	7	+0	0.0194	0.0151	-0.0042
	GUAM	20	60	+40	0.0556	0.1298	+0.0741
	TRUST TERRITORIES	6	133	+127	0.0167	0.2878	+0.2710
REGION X	ALASKA	153	319	+166	0.4260	0.6904	+0.2643
	IDAHO	76	216	+140	0.2116	0.4674	+0.2557
	OREGON	286	308	+22	0.7964	0.6666	-0.1297
	WASHINGTON	536	675	+139	1.4926	1.4609	-0.0316
TOTALS		35,918	46,204	+10,294	100.0000	100.0000	+0.0000

TABLE EPA - 6

FEBRUARY 10, 1975

EPA ESTIMATE
PER CAPITA COSTS REPORTED FOR CONSTRUCTION OF PUBLICLY-OWNED TREATMENT FACILITIES
BASED ON 1990 POPULATION
(CATEGORIES I, II, III, IV A, IV B, AND VI)
(*MILLIONS OF 1973 DOLLARS)
(**THOUSANDS OF PEOPLE)

		1973 COSTS*	EPA COSTS*	1990 POPULATION**	1973 COSTS PER CAPITA	EPA COSTS PER CAPITA	CHANGE IN PER CAPITA COSTS
REGION I	CONNECTICUT	1,409	1,594	3,947	$357	$403	+46
	MAINE	364	575	1,142	$318	$503	+185
	MASSACHUSETTS	1,685	2,956	7,052	$210	$420	+210
	NEW HAMPSHIRE	508	740	987	$560	$815	+255
	RHODE ISLAND	387	447	1,134	$303	$394	+71
	VERMONT	188	204	536	$313	$380	+67
REGION II	NEW JERSEY	3,382	4,899	8,822	$383	$554	+171
	NEW YORK	8,032	15,302	21,799	$368	$701	+333
	PUERTO RICO	590	603	0	$0	$0	+0
	VIRGIN ISLANDS	44	44	0	$0	$0	+0
REGION III	DELAWARE	329	546	793	$414	$688	+274
	MARYLAND	881	3,642	5,318	$166	$684	+518
	VIRGINIA	1,345	1,894	5,958	$225	$316	+91
	WEST VIRGINIA	614	2,309	1,745	$332	$1,279	+947
	PENNSYLVANIA	4,210	5,494	13,332	$315	$409	+94
	DISTRICT OF COLUMBIA	1,081	1,052	764	$1,414	$1,376	-38
REGION IV	ALABAMA	644	778	3,850	$165	$202	+37
	FLORIDA	2,371	2,704	11,728	$202	$230	+28
	GEORGIA	1,031	1,549	5,467	$181	$288	+87
	KENTUCKY	1,032	1,804	3,741	$275	$447	+212
	MISSISSIPPI	255	494	2,359	$113	$209	+96
	NORTH CAROLINA	980	1,480	5,880	$193	$251	+58
	SOUTH CAROLINA	757	977	3,023	$250	$323	+73
	TENNESSEE	895	1,210	4,809	$144	$252	+108
REGION V	ILLINOIS	4,084	6,234	13,177	$310	$473	+163
	INDIANA	1,840	2,983	6,633	$161	$451	+290
	MICHIGAN	3,325	6,102	10,561	$303	$739	+436
	MINNESOTA	1,085	1,330	4,577	$236	$290	+54
	OHIO	2,833	7,773	13,202	$214	$588	+374
	WISCONSIN	787	2,044	5,218	$150	$391	+241
REGION VI	ARKANSAS	355	898	2,068	$171	$434	+263
	LOUISIANA	451	1,283	4,159	$108	$308	+200
	NEW MEXICO	115	155	1,232	$93	$125	+32
	TEXAS	888	3,222	13,668	$65	$235	+171
	OKLAHOMA	624	1,484	2,942	$212	$504	+292
REGION VII	IOWA	582	911	3,053	$191	$298	+106
	KANSAS	671	1,783	2,509	$267	$710	+443
	MISSOURI	972	2,248	5,488	$177	$418	+241
	NEBRASKA	484	909	1,582	$306	$641	+333
REGION VIII	COLORADO	428	489	2,948	$145	$143	-6
	MONTANA	74	127	714	$103	$177	+74
	NORTH DAKOTA	46	134	608	$75	$311	+236
	SOUTH DAKOTA	43	75	643	$66	$116	+50
	UTAH	225	291	1,509	$149	$192	+43
	WYOMING	40	84	608	$66	$140	+74
REGION IX	ARIZONA	238	508	3,384	$70	$147	+77
	CALIFORNIA	6,858	6,209	26,601	$257	$233	+0
	HAWAII	523	563	1,030	$517	$517	+0
	NEVADA	227	209	933	$243	$224	-19
	AMERICAN SAMOA	0	38	0	$0	$0	+0
	GUAM	22	93	275	$80	$338	+258
	TRUST TERRITORIES	0	195	205	$39	$951	+912
REGION X	ALASKA	205	403	408	$502	$992	+490
	IDAHO	112	293	758	$147	$518	+371
	OREGON	568	1,084	2,963	$192	$367	+174
	WASHINGTON	1,080	1,838	4,194	$257	$437	+180
TOTAL		68,123	107,314	252,274	$238	$425	+187

APPENDIX A. SURVEY METHODOLOGY

A. Major 1974 Survey Policies:

The following key procedures were adopted to carry out the expanded scope of the Survey:

1. The five categories of needs as reported in the 1973 Survey were retained but with format changes as indicated:

   (a) Costs for Category I or II were to be reported in either one of the Categories, but not in both.

   (b) Category III was split so that needs were reported in two (2) new categories: Category IIIa deals with "Infiltration/Inflow Correction," Category IIIB deals with "Major Sewer System Rehabilitation." Major sewer system rehabilitation needs were not allowed in the 1973 Survey unless they were related to infiltration/inflow correction and based on a completed study. Reporting was allowed in this Survey in Category IIIb for major rehabilitation or replacement of deteriorated sewers necessary to the total integrity and performance of the system.

   (c) Category IV was separated into Category IVa for "New Collectors" and Category IVb for "New Interceptors." This change also combined the cost of appurtenances into the appropriate Category.

2. A new category VI was established to allow reporting of costs for the treatment and/or control of stormwaters. The costs were to be based on corrective actions which when completed would solve actual or anticipated water quality problems in meeting the objectives of P. L. 92-500. The States were allowed to report these costs on either a facility-by-facility, or a State-wide basis, but were encouraged to use the latter method.

3. Survey instructions that limited reporting of needs in 1973 were removed, such as skip instructions that restricted cost reporting. Also, State water quality standards did not require EPA approval by a specified date in order to justify a reported need. However, query questions were retained which would display the status of completion of applicable studies.

4. Needs disallowed in 1973 as a result of one or more of the restrictive guidelines, and any newly identified facility requirements, could be reported in the 1974 Survey.

5. Changes in the 1973 cost data base were to be reported for such causes as imposition of additional effluent limitations, designation of water quality limited segments, or receipt of a grant award for a previously-reported need. As a result of the changes, 1973 cost data would either increase, decrease or be deleted.

6. Wherever reference was made in the Survey form to terms relating to "secondary treatment" they were to be considered for the 1974 Survey synonymous with the term "Best Practicable Waste Treatment Technology (BPWTT)." Also for the purposes of this Survey, BPWTT was to mean secondary treatment under the treatment and discharge alternative, unless higher levels of treatment were required by water quality standards or other requirements. Nothing in these definitions affected the July 1, 1977 secondary treatment requirements of the Act.

7. States had the option of reporting on needs in places of less than 10,000 population outside Standard Metropolitan Statistical Areas (SMSA's) by either using the same sample group used in the 1973 Survey, or reporting this year on a 100 percent basis.

8. For compatibility, all costs in the 1974 Survey were required to be reported in June, 1973 dollars.

9. Costs were to be based on the design of facilities which will serve the projected 1990 resident population.

B. Conduct of the Survey:

The Agency initiated the Survey on January 31, 1974, with the presentation to each of the States of the general outline and the basic survey form.

P. L. 93-243 required that Form EPA-1 used in 1973 be used again for the 1974 Survey. Adjustments to the Form were necessary, to add one new cost category and to eliminate previous reporting restrictions. In addition, improvements were made to lessen the respondent burden. The Survey was designed with the advice of an ad hoc group consisting of EPA Regional Office and State Officials.

As with the 1973 Survey, the State Agency had the option of completing the Survey questionnaires itself, or forwarding them to individual sewerage authorities for completion.

The 1974 Survey Plan retained the concept that the costs reported for all needs must indicate the basis on which the cost estimate was developed. Where available, the States were required to provide data to support their reported needs. Cost estimating guidelines were provided to assist the States in the absence of more valid sources.

A draft copy of the revised questionnaire and guidelines was mailed to the States on March 29, 1974, so that they could commence detailed planning for the conduct of the Survey. Instructional seminars were conducted for the States in the EPA Regional Offices. The official copies of the Survey questionnaire were mailed to the States on April 29, 1974, with instructions that by July 26, 1974, the Forms should all be completed and into the EPA Regional Office. The States were also requested to provide EPA with a report summarizing the costs for each Category of needs, and information relating to the rationale behind any reported needs that were affected by abatement requirements that either they or EPA had not formally approved.

The EPA Regional Office Staff conducted an initial screening of all questionnaires. As these Regional evaluations were completed the questionnaires were processed for keypunching. The Bureau of the Census accomplished the keypunching operation and provided EPA with a tape of the transcribed data from each questionnaire which was used for the final comprehensive Agency analysis.

EPA INDEPENDENT ASSESSMENTS FOR CATEGORIES I, II AND IVB*

APPENDIX B

(In Millions of Dollars)

States	State Corrected	EPA Adjustment	Reasons for Adjustments						Final EPA Adjusted Costs
			Population	Flow/Cap.	Effluent Limitation	Cost Curves	Interceptors	Combination	
TOTALS	52,645	-6,447	(+)615	-676	-2,827	-1,194	-1,864	-501	46,198
REGION I									
Connecticut	478								478
Maine	273								273
Massachusetts	1,485	-160		-113		-38	-9		1,325
New Hampshire	121	-87				-33	-54		34
Rhode Island	209	-22		-7			-15		187
Vermont	131	-6		-6					125
REGION II									
New Jersey	2,647	-45					-25	-20	2,602
New York	5,325	-719	(+)876	-100	-1,174	-313	-55	-153	3,887
Puerto Rico	368								368
Virgin Islands	31								31
REGION III									
Delaware	199								199
Maryland	1,062	-258				-215	-43		804
Pennsylvania	1,892	-263	-84			-136	-19		1,629
Virginia	1,294	-165				-104	-37	-24	1,129
West Virginia	1,133	-813	-35		-157	-7	-614		320
Dist. of Columbia	69								69
REGION IV									
Alabama	593								593
Florida	2,774	-300	-75	-30	-70		-55	-70	2,474
Georgia	1,447	-7				[illegible]		-7	1,440
Kentucky	549								549
Mississippi	99								99
North Carolina	1,444								1,444
South Carolina	778	-8	-8						770
Tennessee	941	-4					-4		937
REGION V									
Illinois	3,164	-21				-21			3,143
Indiana	797	-60				-24	-36		737
Michigan	1,754	-64		-64		-23			1,690
Minnesota	1,287	-40				-40			1,247
Ohio	2,432	-114				-78	-36		2,318
Wisconsin	1,035	-56		-28		-32	-16		979
REGION VI									
Arkansas	324	-137			-114		-23		187
Louisiana	445	-146				-31	-91	-24	299
New Mexico	97								97
Oklahoma	1,420	-388		-61		-44	-279		1,032
Texas	1,260	-537	-32	-32	-401			-72	723
REGION VII									
Iowa	585	-57		-7		-46			528
Kansas	478	-54				-30		-24	424
Missouri	976	-83				-83			893
Nebraska	268	-39	-4			-35			229
REGION VIII									
Colorado	512	-251				-54	-97	-100	261
Montana	90								90
North Dakota	74								74
South Dakota	72								72
Utah	218								218
Wyoming	96	-31	-31						65
REGION IX									
Arizona	166								166
California	4,980	-776			-678		-98	-20	4,204
Hawaii	119								119
Nevada	189	-17				-17			172
American Samoa	8	-1					[illegible]	-1	7
Trust Terr. of Pac. Islds.	11								11
Guam	60								60
REGION X									
Alaska	319								319
Idaho	192								192
Oregon	348								348
Washington	760	-285		-277			-8		475

* This table shows: (1) the "State Corrected" estimates, (2) the "EPA Adjustment" to the estimates, (3) the reasons for the adjustment (Population, Flow per Capita, Effluent Limitations, Cost Curves, Interceptors, and a Combination of these problems that could not be reported), and (4) the "Final EPA Adjusted Costs".